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ABSTRACT

Described is a project designed to present four training sessions for community specialists representing outreach interests such as cooperative extension, senior citizens organizations, and welfare agencies. Training consists of instruction in contemporary knowledge, skills, and methods of home energy conservation, and in how to teach others to apply their knowledge. After training, the specialists are assigned to present workshops on home energy conservation to individuals and community groups. (Author/RE)

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HOME ENERGY CONSERVATION

TRAINING PROJECT

FINAL REPORT

A Community Service Project
Supported By Title I-A of the
Higher Education Oct. of 1965,
through the West Virginia Board
of Regents.

David L. McCrory
Project Director

October, 1979

Technology Education Program
College of Human Resources & Education
West Virginia University
Morgantown, West Virginia

SE 029 672

State: West Virginia Fiscal Year & Project ID# 78-018-009

THE COMMUNITY SERVICE AND CONTINUING EDUCATION PROGRAM
TITLE I-A, HEA FINAL PROJECT REPORT

1. Project Title: Home Energy Conservation Training Program

2. Location & Duration of Project:

On Campus X Beginning Date 7/1/78
Off Campus X Length in months 14

3. Primary Institution of Higher Education: West Virginia University

4. Cooperating Institutions of Higher Education: N/A

5. Project Director (Name, Title, and Address)

Dr. David L. McCrory
West Virginia University
2929 University Avenue
Morgantown, WV 26506

6. Project Funds

A. Federal Funds (List amount used by each institution) $ 12,928

Total

B. Matching Funds

(1) Institutional Funds (Listing contributing institutions and the amount) WVU 8,751

(2) State Government Funds 11,493
(3) Local Government Funds 0
(4) Participant Fees 0
(5) Other (specify in each instance) 0

Total 31,177

7. Type of Project

A. Area of Activity

___ Continuing Education
X Community Service
___ Planning for Resource Sharing

B. Categorize the project in terms of its focus (check one)

___ Aging/Elderly	___ Women
___ Government	___ Crime/Law Enforcement
___ Housing	___ Health
___ Poverty/Low Income	___ Economic Development
___ Transportation	___ Human Relations
___ Environmental Quality	___ Personal Development
___ Youth Opportunities	___ Education/School Systems
___ Recreation	X Energy Related
___ Employment	___ Land Use
___ Consumer Education	___ Other (_____)

8. Describe the Specific Objectives of the Project

Primary:

Plan and implement 5 intensive training sessions for 100 community specialists in Northern West Virginia, in order to:

1. Demonstrate to the specialists some contemporary and practical techniques of home winterization and energy conservation;

2. Train the specialists in methods of presenting community workshops or training sessions on home energy conservation; and

3. Organize the specialists to provide community workshops or training sessions, and community assistance project for approximately 2000 West Virginia citizens during the winter of 1978-79.

Secondary

Organize a home energy conservation resource center which will:

1. Develop instructional support materials for use in community workshops;

2. Supply community specialists with instructional materials for home energy training sessions;

3. Provide consultant support and organization assistance for community workshops on home energy conservation;

4. Document the level of success of various workshop activities;

5. Disseminate results of home energy conservation workshop activities; and

6. Assess and report results of project.

9. Project Operations

A. What was the primary type of activity? (Check one)

____	New course for degree credit		Mass Media
____	Credit-free course	____	Radio
X	Workshop/Seminar/Conference	____	T.V.
____	Action Research	____	Publication
____	Technical Assistance (incl. planning & evaluation)		
____	Counseling		
____	Other (specify)		

B. Describe the project content; that is, materials employed, instruction or service performed, personnel involved, and where applicable, the frequency and duration of sessions.

Summary - The Home Energy Conservation Training Program was a project designed to conduct 4 training sessions in Northern West Virginia to train 100 selected community specialists representing Community Action, Cooperative Extension, Department of Welfare, Senior Citizens, and other outreach programs. The training consisted of instruction in contemporary knowledge, skills, and methods of home energy conservation, and how that information may be taught to others. After training, the community specialists were assisted in presenting community workshops or training sessions on home energy conservation to individuals and community groups. Dissemination of such information ultimately reached more than 2500 West Virginia citizens.

Activities of the project - The Home Energy Conservation Training Program was conducted in 4 phases, as follows:

Phase I - Project Preparation (June 1 - August 30)

- Securing project personnel
  - David L. McCrory - Project Director
  - Michael P. Vogel - Project Leader
  - Warren Kooi - Researcher/Instructor
  - Karl Hans - Researcher/Instructor

- Acquiring Resource Materials - Resources such as flyers, books, posters, slides demonstrations, and booklets were acquired from the following sources:

Anderson Window Company	Flex-Wall Systems
Borden Inc. (Insulation products)	Florida Cooperative Extension
Columbia Gas Co. of Wheeling, WV	General Electric Company
Department of Energy	Hope Natural Gas
Everstrite Door Systems	Insulspray Co. (Insulation Products)
Federal Energy Administration	Lowe's Lumber Supply of Morgantown, WV
Federal Trade Commission	

Maytag Company
Monongahela Power Company
National Solar Heating & Cooling Information Center
Oran Corporation
Owens-Corning Company (Fiberglass)
Plaskolite, Inc.
Potomac Edison Power Company
Public Utilities Association of the Virginias
Quaker City Manufacturing Company
RCA
Readers Digest
Sears
Thermafilter Company
U.S.D.A. Forest Service
U.S. Gypsum Company
Whirlpool Corporation
WBOY Channel 12, Clarksburg
West Virginia Fuel and Energy Office
W.V.U. Cooperative Extension

Please refer to statement 3 and Appendix A for listing and copies of resources obtained from these organizations.

- Developing training aids - The following training aids were developed for the Home Energy Conservation Training Program. (See Section 3 for further information and photos.)

  - posters addressing
    - Where to Insulate the Home
    - Where to Caulk the Home
    - Where Heat Loss Takes Place
    - What is a "R" Value
    - How Much Insulation is Enough
    - What is Insulation
    - Cellulose Insulation
    - Polystyrene Insulation
    - Urea Formoldehyde Foam Insulation
    - Fiberglass Insulation
    - Poly Ureathane Foam
    - Mineral Wool
    - How Energy is Used in the Home

  - Home Energy Conservation Training Manual (revised and published under the title: "Home Energy Conservation Primer").

  - Insulated door unit (from Everstrit door systems).

  - Storm windows to demonstrate caulking and weather-stripping options and storm window applications.

  - Insulation Exhibit (demonstrates various insulation applications in a wall section).

  - Slide presentations on:
    - Appliances
    - Heat Loss
    - Caulking & Weatherstripping
    - Insulation

  - Flip chart presentations on:
    - Heating systems
    - Appliances

- Overhead transparency presentations on:
  - appliances
  - insulation (types, kinds, applications)
  - ventilation
  - heating loss
  - vapor barriers
  - heating systems

- Resource packet of related energy conservation materials.

- Recruiting community specialists - Over 100 community specialists from approximately 40 West Virginia agencies were recruited for the HECTP project. A total of 90 community specialists participated in the training sessions. The 90 specialists represent 33 West Virginia agencies. (A complete listing can be found in section 5.C of this report.) For names of participants see Appendix B.

- Planning training sessions - Four HECTP training sessions were planned and carried out. They are as follows:

HECTP Training Session Locations

Sept. 15	Morgantown, WV	W.V.U. Coliseum, Room 115 (Mountaineer Lounge)
Sept. 22	Parkersburg, WV	Parkersburg Community College, Room 55 A&B (Downstairs of Main Bldg.)
Oct. 6	Wheeling, WV	Ohio County Welfare Dept. Conference Room, 407 Main Street, Wheeling, WV
Oct. 20	Jackson's Mill State 4H Camp	Jackson's Mill State 4-H Camp, Weston, WV Flameway Building

Phase II - Community Specialists Training (September 15 - October 20)

Activities of Phase II included:
- implementing 4 training sessions
- planning community workshops

Phase III - Community Action Assistance (November 1 - March 30)

Activities of Phase III included:
- advising community specialists on presenting home energy conservation workshops and training programs
- implementing workshops, training sessions, or assistance projects by community specialists
- providing resources on home energy conservation
- evaluating community workshops

Phase IV - Project Evaluation (April 1 - May 30)

Activities of Phase IV included:
- documenting training results
- analyzing results
- final analysis and report

Content of Training Sessions:

The training sessions for community specialists focused on knowledge and methods of home winterization and energy conservation, and how to demonstrate the techniques to others. Emphasis was placed on low-cost activities, projects, and ideas to conserve fuel in family dwellings such as mobile homes, houses, and apartments. The energy conservation methods were practical and appropriate for low income, elderly, and disadvantaged citizens. Topics included:

- Determining heat loss in the home
- How to reduce heat loss
- Options and priorities of reducing heat loss
  - Selecting and applying caulking
  - Selection and application of weatherstripping materials
  - Types and kinds of insulation
- Economics of insulation
- R-Values, vapor barriers, and ventilation
- Types and application of storm windows
- Insulated shutters and draperies
- Economics and advantages of storm doors
- Kitchen appliance selection and use
- Selection and maintenance of hot water heaters
- Reducing energy use in cooking
- Types and selection of heating systems
- Maintaining and improving the efficiency of existing heating systems (forced air, steam, hot water, electric resistance, heat pumps)
- Economics of heating--coal, wood, gas, oil and electric
- Wood stoves and burning with wood
- Fireplace construction, location, and chimney maintenance
- Energy conservation for the apartment
- Energy conservation for the mobile home
- Building an energy efficient shelter
- Alternative sources of energy
- Solar energy systems, advantages and disadvantages, and do-it-yourself applications
- Hands-on activities related to the above topics

Agenda for the Home Energy Conservation Training Program

8:30 AM - 9:00 AM - Registration
- Welcome and Introduction (Vogel)
- Energy in Perspective (Kooi)
- Heating Transfer (Hans & Vogel)
- Heating Systems (Hans)

12:00 PM - 1:00 PM - Lunch (Everyone)
- Appliance Usage (Kooi)
- Energy Efficient Housing (Hans)
- Weatherization--Caulking, Weatherstripping & Windows (Vogel)
- Break
- Insulation (Vogel)
- HECTP Evaluation (Vogel)

5:00 PM - Close

10. Project Accomplishments

A. Evaluation

I. Discuss the nature and the findings of the project evaluation. Include an assessment of the projects success in meeting its specific objectives (see #8). In addition, comment on what you see as the reasons for the success or failure of the project. Did the project reach the anticipated target group? Was the level of participation as high as was projected? What outcome is worthy of dissemination to other states and institutions of higher education?

a. Primary Objective - General: Although 5 training sessions were projected for 100 community specialists, only 90 persons attended 4 sessions. Preliminary arrangements for the fifth session indicated that attendance would be very small, so that session was dropped. However, as will be seen below, the specific objectives of the project were met or exceeded. Therefore, the project can properly be termed a success.

b. Primary Objective #1 (content): A variety of contemporary and practical techniques was demonstrated to the specialists. The participants' evaluation of training content resulted in very positive feedback (see Appendix). Evaluation of each of the training units indicated that the content was exactly what the specialists needed.

c. Primary Objective #2 (process): Again, participant evaluations showed that the workshop method of instruction using team demonstrations, lectures, and discussions in a unit format was effective. Many participants indicated that the training sessions were the best they had ever attended.

d. Primary Objective #3 (action): The goal of 2000 citizens-contacts was exceeded. In all, through both direct (face-to-face) and indirect (media) means, specialists documented a total of 2678 contacts in which they communicated information about home energy conservation. It is feasible to estimate that thousands more second and third order contacts went undocumented.

e. Secondary Objective - General: A resource center of home energy conservation material was also projected as a goal of the project. This objective was achieved specifically as indicated below.

f. Secondary Objective #1: Several instructional devices were developed by the workshop staff, and were supplemented by demonstration devices donated by commercial businesses.

g. Secondary Objective #2: The demonstration devices and training aids developed were loaned out to community specialists to assist them with their activities. Use of the devices was so heavy that many of them are now worn out.

h. Secondary Objective #3: By design, the project staff assisted the specialists in organizing community workshops and selecting and obtaining instructional materials.

i. Secondary Objective #4: Each of the training activities was evaluated in terms of its content and process. Results were very favorable. Feedback regarding the Home Energy Conservation Trainers Handbook (used as a reference text during the training) produced useful data for revision. The Handbook was subsequently rewritten and is being made available as the "Home Energy Conservation Primer."

j. Secondary Objective #5: Results of training activities and follow-up workshops were publicized via mass media. In addition, this report is being sent to selected persons involved in the delivery community services.

II. Will the program itself continue beyond this period of Title I funding? If so, under what sponsorship or support. (Check one)

____ Continued under Title I*	Accomplished purpose __X__ no further plans
____ Continued with other Federal funding	____ Unsuccessful, no further funding
____ Continued with non-Federal funds	____ Other (specify)

* List new project ID number(s):

10. Project Accomplishments (cont.)

B. Relative to Institution(s) of Higher Education

Indicate the impact of the project upon on-going programs of recipient colleges and universities. Have changes occurred, or are they anticipated, in the organization, curriculum, budget,

continuing education and/or community service programs? Describe any planned or unexpected "spin-offs" involving additional funds or activities generated.

As a direct result of the project, the Technology Education Program at West Virginia University is now recognized as having the capability of responding to the energy conservation needs of citizens in the community. Due to the public awareness accrued, the department is now regularly being asked to provide information and assist with a number of energy conservation projects. Although no major funds have been dedicated, a number of activities has "spun off" from this project, including:

1. TERAD - a project to renovate an old house for use as a home energy research and demonstration center.

2. DOE Small Grants Program - because of this project, a member of the department staff became interested in solar energy and won a modest grant to build a solar greenhouse.

3. Field Projects - Department faculty and staff involved in school curriculum development and inservice education projects have begun to include home energy conservation related materials in their programs.

4. Short Courses - a number of non-credit short courses are being developed around topics such as woodstoves, solar heating, wind power, and insulation materials.

5. Weatherization Workshops - a series of energy audit workshops is being planned in cooperation with the Weatherization Program, State OEO.

10. Project Accomplishments (cont.)

C. Relative to the Community

Specify the extent and the nature of the involvement in the project of community leaders, citizens, businesses and industries, public and private agencies and State and local government. Were they, for example, involved in the initiation of the proposal and/or the planning and development of the project? Have any new community agencies, organizations, or groups been established as a result of this project? Has the community service capability of existing agencies and organizations been increased. If so, please describe:

The involvement of community groups, agencies, and businesses was a necessary part of this project. In short, cooperation was outstanding. In all, 33 community agencies were involved in the project, and a total of 33 utility companies and energy product

suppliers/manufacturers contributed training materials (see Appendix). Many of the community service agencies involved have indicated via follow up question - aires that their capabilities have been greatly increased. Typical comments credited this project with having (1) raised the level of competence of their staff, and (2) made available additional sources of information regarding home energy conservation.

11. Geographic area served by the Project (check one)

___ Urban	_X_ Regional	___ Suburban
___ Rural	___ Statewide	___ Other (specify)

12. Prior History of the Project (check one)

_X_ New Project	___ Expansion or improvement
___ Continuation of CSCE Project*	___ of non-CSCE project
___ Major Revision of CSCE Project*	___ Other (specify)

* List previous project I.D. number(s):

13. Faculty Involvement (List the faculty members involved in the project, the nature of their activity, their academic discipline, and the percentage of their time spent on the project).

Faculty	Activity	Discipline	% of Time
Dr. David L. McCrory	Project Director	Technology	20%
Dr. Paul W. DeVore	Training Advisor	Technology	2%
Dr. David L. DePue	Content Advisor	Technology	2%
Dr. Frederick Zeller	Community Dev. Advisor	Economics	2%
Dr. Robert W. Miller	Evaluation Advisor	Psychology	2%
Dr. John Loth	Alternative Energy Advisor	Aerospace Engr.	1%
Mr. Mike Vogel	Training Associate	Technology	50%
Mr. Karl Hans	Training Associate	Technology	50%
Mr. Warren Kooi	Research Associate	Technology	50%

14. Student Involvement (If applicable, indicate the nature of student involvement in the project as well as the number of students engaged in each activity).

A. Instructors
B. Interns
C. Consultants (Technical Assistance)
D. Researchers/Data Collectors
E. Other (Specify in each instance)

Activity	No. of Students
N/A	

15. Demographic Data

Demographic data on all actual participants should be collected and reported for each project. The data should be summarized in terms of sex, age and education.

A. Demographic Summary

	Males 56	Females 34
Age		
Under 21:	1	0
21-35:	20	15
36-55:	31	12
Over 55:	4	7
Educational Level		
Elementary:	0	0
Junior High School:	1	0
High School:	1	4
College below baccalaureate:	10	7
Baccalaureate:	35	20
Graduate or Professional:	9	3

Mass Media -- number of estimated individuals served: 1000*

* Some trainees disseminated information via newspaper columns and TV/radio interviews.

B. Narrative Description (Give a brief narrative of the general characteristics of the participants should be included, i.e. were they city councilmen, upper level managers, housewives, etc? Were they the group for whom the project was intended?)

The 90 professionals participation as trainees in this project represented 33 agencies involved in community service/community education. A complete list of the participants, their job titles, and the agencies they represented, appears in the Appendix. In short, the target group was precisely that for whom the program was intended.

16. Project Materials (Describe the materials produced for and by the project, i.e. curriculum materials, films, etc., and indicate whether copies are available for dissemination).

In addition to many devices obtained from commercial establishments, several types of information and training aids were developed by the project staff, including:

- 36" x 48" display posters addressing caulking, insulating, and "R" values (one copy only).
- Window model showing various ways to inexpensively insulate (one copy only).
- Slide presentation of techniques of insulating, caulking, and weatherstripping (one copy only).
- Flip charts on heating systems and appliance use.
- Overhead transparencies on a variety of energy conservation methods (one copy only).
- Home Energy Conservation Primer (originally developed as a training manual, this document was revised and published for general use by community service professionals. A limited number of copies are available from the Project Director.)

17. Express your judgment on the relationship of this project to the overall State program of Community Service and Continuing Education. (Title I-A HEA)

The FY 78 West Virginia Plan for Title I - HEA spotlighted housing problems and energy conservation as two major targets for action. This HECTP project directly related to both of those goals, with special emphasis on the following state objectives (ref.: "Guide for Program Development and Management," Title I - HEA Programs, West Virginia Board of Regents, FY 1978):

A. Community Service Activities

a. Assisting people and communities in transition as related to problems of energy;

b. to educate the general public in new methods and usage of energy for home and transportation that will result in a net reduction of the energy usage growth rate (secondary beneficiaries of HECTP);

c. to train community specialists in methods of home winterization and fuel conservation so that they can assist homeowners in reducing energy usage (primary beneficiaries of HECTP).

RESULTS OF EVALUATION

The Home Energy Conservation Training Program was evaluated in three phases as outlined below.

Phase I - Evaluation of Workshops

At each training session, the participants were asked to respond to a workshop evaluation form referring to the training process, workshop content, and instructional resources identified. A summary of the results follows:

1a. Has the training session been beneficial to you?

Yes	66
No	0
No Response	24

1b. In what way? (comments recorded verbation)

All material and instruction pertains to programs offered to our county residents, mainly dealing with the disabled and poor.

Very valuable to me. I will be able to better explain to clientele.

Material was very well prepared and illustrated.

Beneficial in insulating and weatherizing homes.

Materials (handouts and resources) received were beneficial.

Access to teaching materials -- clearing up questions about vapor barriers.

Learned new ideas.

Weatherization material was helpful.

To train CETA workers in weatherization.

To help clients with insulation, weatherproofing, and choice of heating systems.

I learned much from this, including step-by-step information about R-factors, etc.

Very valuable take-home material.

Very well presented, good explanations. Very motivating and professionaly done. A definite effort was made, relaxing, but also educational. Worth my time.

Learned about material purchases, water temperature maintenance. The HECTP manual will be especially valuable.

It opened up new ideas and concepts of weatherization which I can pass along to fellow workers.

Small details that are often overlooked were mentioned -- very important.

Lectures and training manual were very informative.

There were a few enlightening pieces of information, but I feel the manual should be used more as a reference than a textbook.

Gave resources for clients, ideas for public workshops. Learned especially how to present materials. Presentations were very well coordinated. Good teaching examples.

Providing background and resources for me to use in public programs, as well as for my own use.

Especially good resources on furnaces and heating systems, vapor barriers, and caulking.

Lots of good information for use with groups and for personal use.

New topics of awareness (over-sized furnaces).

Information will be of use professionally and personally.

The practical tips on energy conservation and information or different heating systems were very beneficial.

To help us judge our Weatherization Program.

Additional information and charts.

Better knowledge of insulation and heating loss. Excellent use of examples. Teaching aids were also very detailed and interesting.

Exploded some myths.

Knowledge of newer types of insulation materials.

It made available more resources that I need.

Made me more aware of energy saving methods and better prepared me to answer client's questions.

It continued my education in the field of energy conservation.

I didn't know what an "R" factor was until this training session. A lot of information to pass along.

Refreshed my knowledge of energy conservation.

New insights into insulation and energy saving.

The economical "do-it-yourself" methods that the elderly can use.

Increased awareness of resources and uses, factual data and organizational ideas.

2a. Will your agency be able to use this material?

Yes	71
No	1
No Response	18

2b. How? (repetitive responses deleted).

Through our Community Action Weatherization Program.

Through workshops at the local level.

Training Community Action Weatherization crews.

At the Fairmont Shopping Mall exhibit.

In newspaper columns.

Welfare recipient programs.

With 4-H leaders training and in answering questions of clients of extension programs.

In retrofitting older homes.

Through personal contacts with clients.

Exhibits of Extension Program.

With homemaker groups.

Determining client needs for further education programs.

Staff training.

Senior citizen meetings - new topics.

Ideas for presentations to civic groups.

CAA Emergency Energy Program

3. Which units of the HECTP Training Manual were of most benefit to you?

Rank	Unit	No. of Points
1	3 (Weatherization)	66
2	5 (Energy and Appliance Use)	62
3	2 & 4 (Heat Transfer in the Home & Heating Systems)	58
4	6 (Designing Energy Efficient Housing)	57
5	1 (Energy in Perspective)	52
6	8 (Energy Conservation and the Mobile Home)	37
7	7 (Energy Conservation in the Apartment)	34

4. Was the information too technical?

Yes	11
No	60
Some	
No Response	19
TOTAL	90

5. Please rate and comment upon the units of instruction.

Rank	Unit	No. of Points
1	5 - Appliance Usage	90
2	4 - Heating Systems	72
	3b - Caulking/Weatherstripping	72
3	3a - Weatherization	71
	3d - Insulation	71
4	2 - Heat Transfer	70
5	1 - Energy in Perspective	69
6	6 - Designing Energy Efficient Shelter	60
7	3c - Windows	25

Phase II - Evaluation of Primary Beneficiaries

At each training session, the trainees (community specialists) were asked to disseminate the energy conservation information through local workshops, staff training sessions, or by whatever means were practical. During the course of these second-order activity, the HECTP training team, by invitation, consulted with approximately 75% of the community specialists. The consulting services included the following activities:

1. Telephone Consultations - scheduling resources, exhibits, and demonstrations, suggesting further resource materials and resource people.

2. Personal Assistance - providing additional information and assisting specialists with organizing and implementing local workshops and exhibits.

3. Conference Presentations - speaking and providing demonstrations at conferences and public meetings. Among the activities were several ETV spots at a regional energy conference in Baltimore, MD.

Through such follow-up contacts, it was apparent that the training conducted for the community specialists had indeed resulted in new knowledge and further action, as planned.

Phase III - Evaluation of Secondary Beneficiaries

Each trainee was asked to report on his/her follow-up activities resulting from the training workshops. Report form MV-2 designed to record materials used, and Form PC-1 was used to record data about persons contacted. The project staff analyzed the report forms as they were received. As might be expected, obtaining data from the community specialists became a laborous task. Of the 90 trainees, 45 returned follow-up forms, not all of which were complete. There were sufficient data, however, to enable the project staff to develop the following summary of the number of secondary beneficiaries contacted. The data include both direct (personal) and indirect (mass media and exhibits) contacts made by the community specialists.

Region	Trainees	Direct Contacts	Indirect Contacts	Total
Jackson's Mill	30	423	700	1,153
Wheeling	8	65	70	143
Morgantown	31	85	1,250	1,366
Parkersburg	21	190	195	406
	90	763	2,215	3,068

It should be noted that the "multiplier effect" of this project is evident in the fact that beginning with the original 90 community specialists trained, within a few months, a total of 3,068 citizens had been given a new awareness of practical measures for home energy conservation.

RESOURCES DEVELOPED

The HECTP project developed a number of resources which have been shared with participants. The overall concept of HECTP was to train community specialists and provide them with materials and methods for conducting energy conservation programs in their own communities. The method used for instruction was the workshop in which a broad range of topics were presented using varying types of media. Although the specialists were free to present the material in any manner deemed appropriate, they were best equipped for a workshop style presentation after attending HECTP.

Each participant received the following materials:

A. HECTP Training Manual - a comprehensive guide book and resource manual that was the focal point of the training sessions. The manual contains substantive information, study guides, and activities which can be used in follow-up training programs. The manual was prepared by the HECTP staff and was revised as the Home Energy Conservation Primer.

B. Resources Packet comprised of flyers, pamplets, and reprints from industry and government. All of the materials are available in bulk quantities and participants were encouraged to make use of these free publications.

C. Instructional Displays were made available on loan to any participant who needed them. Items exhibited in the displays included types of insulation, heat loss, caulking, weatherstripping, storm windows, and mockups of windows and doors.

D. Slides, Transparencies, and Instructional Materials, if not in the HECTP manual, were made available to anyone who wished to copy them for use in their own programs.

The HECTP Staff was also available to assist any participant in follow-up activities and to provide consultation. HECTP participants were encouraged to make use of the staff and were periodically contacted concerning their progress and problems. Subsequent contacts initiated by trainees indicated that this service was a significant factor in the project's success.

SPIN-OFFS OF THE PROJECT

The impact of HECTP upon West Virginia University and upon the community as a whole has been significant. HECTP identified new people and resources throughout the state and helped strengthen contacts already made. These people and organizations are now more aware of West Virginia University and the Technology Education Program and have a better understanding of the services available to them. Because of HECTP WVU is better able to respond to the public on energy conservation matters with both material resources, such as those available through the Technology Education Research and Resources Center, and with human resources in the form of more knowledgable people. Through HECTP, the citizens of West Virginia can see direct and positive results from WVU outreach programs. These programs are available to citizens at all levels and provide services not normally associated with University programs. HECTP has lead to an increased organizational component among the participating agencies and has strengthened their community service activities.

An important institutional change that has been influenced by HECTP is the willingness of WVU to make available a University-owned house to be used as an energy conservation and housing retrofit model. The project house, known as TERAD for Technology Education Research and Demonstration, is being renovated and retrofitted for energy conservation by the Technology Education Program using funds donated by WVU, the Community Action Association, and the National Center for Appropriate Technology. TERAD is another example of an increased outreach capability developed by WVU for West Virginia citizens.

Spin-offs from HECTP include the TERAD project, Technology Education short courses for citizens in energy, housing, etc., and local community workshops and programs developed by HECTP participants. The HECTP manual is being revised and republished with Title I funds by the HECTP staff. HECTP team leader Mike Vogel attended an OEO/Community Action weatherization conference in Baltimore this past March and was asked to present information about HECTP. This contact has lead to increase awareness of HECTP and WVU by not only West Virginia OEO/Community Action but also organizations in several other mid-Atlantic states. Technology Education is also contracted to evaluate the effectiveness of the Community Action weatherization program in West Virginia. HECTP staff member Karl Hans will conduct the evaluation for the OEO.

PARTICIPANTS IN THE MORGANTOWN TRAINING SESSION

September 15, 1978

Michael Smith--SAAP, Morgantown, WVU
Douglas Marrs--Council of Southern Mountains, Welch
Elmer Riddle--Council of Southern Mountains, Welch
Jean Woloshuk--Extension Service, New Martinsville
John Marra--Extension Service, Hamlin
Bob Meadows--Extension Service, Morgantown
Stan Kingston--Multi-County Community Action Against Poverty, Charleston
Roger LeMaster--North Central W.V. Community Action Association, Fairmont
Richard McDaniel--Dept. of Welfare, Grafton
Patricia Balducci--Dept. of Welfare, Morgantown
Voras Haynes--Extension Service, Romney
Loretta Salici--A.P.O., WVU, Morgantown
S. Porter Smith--Extension Service, Romney
Joyce Lehrer--Dept. of Health, Morgantown
Donald Reppy--Dept. of Welfare, Fairmont
Frank O'Hara--Extension Service, Keyser
John Trickett--Dept. of Welfare, Fairmont
Kathleen Cline--Community Action Association, Morgantown
Richard Collins--Community Action Association, Barbour County
James Bennett--Community Action Association, Barbour County
Marsha Haught--Community Action Association, Kingston
Sue Borgman--Community Action Association, Kingston
Lee Knotts--Community Action Association, Kingston
Betty Meredith--Dept. of Health, Morgantown
John Kapinsky--Community Action Association, Morgantown
Tracy Triplett--Community Action Association, Morgantown
Kenneth Savage--Community Action Association, Morgantown
Fairy Downs--Extension Service, Fairmont
Betty Watkins--Region 9 Nutrition Program, Charleston
Willa Baker--Region 9 Nutrition Program, Berkeley Springs
Joe Snider--Dept. of Welfare, Clarksburg

PARTICIPANTS IN THE PARKERSBURG TRAINING SESSION

September 22, 1978

James Hall--Dept. of Welfare, Welch
Herbert Harmon--Mingo County E.O.C., Williamson
Paul Kyle--Dept. of Welfare, New Martinsville
Robert Waldron--Dept. of Welfare, Huntington
Steve Poling--West Central W.V. Community Action, Parkersburg
Kate Burbank--Extension Service, Spencer
Ancil Cutlip--Extension Service, St. Marys
Sue Black--Extension Service, Ripley
Evelyn Wilson--Dept. of Welfare, Elizabeth
Marian Thurman--Dept. of Welfare, Charleston
Russell Harvey--Dept. of Welfare, Charleston
Joe Wough--North Central W.V. Community Action Association, Sandyville
Peter Sandwall--Gilmer County Community Action Association, Glenville
Walter Maynard--Southwestern Community Action Association, Lincoln
Mary Heaton--Tyler County Community Action
Carl Parsley--Southwestern Community Action, Huntington
Charles Jones--South Central Community Action Association
Russell Fry--Dept. of Welfare, Wayne
Sherman Nelson--South Central Community Action Association, Huntington
Emory White--Mercer County E.O.C., Bluefield
Francis Boyle--Dept. of Welfare, Spencer

PARTICIPANTS IN THE WHEELING TRAINING SESSION

October 6, 1978

A. C. Megale, Columbia Gas, Wheeling
John Daugherty, Columbia Gas, Wheeling
Ilene Howell, Marshall County Senior Citizens, Moundsville
Jane Herron, Senior Center, Hancock County
Jeff McCheskey, W.V. Dept. of Welfare, Wheeling
Richard Warmuth, Marshall County Schools, Moundsville
Bob Rogan, W. Liberty State College, W. Liberty
Cam Cionni, Brooke Committee on Aging, Follansbee

PARTICIPANTS IN THE JACKSON'S MILL TRAINING SESSION

October 20, 1978

Kathy Bloom, Braxton Senior Center, Gassaway
Deborah Long, Braxton Senior Center, Gassaway
Sharon Connor, Braxton Senior Center, Gassaway
Otis Pence, Monroe County Community Services Council, Inc., Lindside
James Barnes, W.V. Dept. of Welfare, Grafton
Charles Smith, Central W.V. Community Action Association, Inc., Clarksburg
Dennis Hanson, Fayette County Dept. of Welfare, Fayetteville
C. B. Randolph, Doddridge County Senior Citizens, West Union
Dawn Knicely, Upshur County Community Action Council, Inc., Buckhannon
Michael Roberts, W.V. Dept. of Welfare, Grantsville
Donald Bailey, W.V. Dept. of Welfare, Grantsville
Becky Fowler, Women's Information Center, Blacksville
Pamela Brannon, WVU Extension Service, Clarksburg
Pat Kiddy, Central W.V. Community Action Association, Weston
Lorella Nelson, WVU Extension Service, Elkins
Jerry Young, WVU Extension Service, Elkins
Norman Rexrode, WVU Extension Service, Summersville
Robert O'Dell, W.V. Dept. of Welfare, Summersville
William Frye, WVU Extension Service, Weston
John Clare, WVU Extension Service, Sutton
James Stiles, WVU Extension Service, Parsons
Karen Spiker, Marion County Senior Aides Project, Fairmont
Kathryn Starkey, Marion County Senior Aides Project, Fairmont
Betty Parrish, Marion County Senior Aides Project, Fairmont
Opal Delligatti, Marion County Senior Aides Project, Fairmont
Rilla Yost, Marion County Senior Aides Project, Fairmont
Ruth Clelland, Marion County Senior Aides Project, Fairmont
George Mouse, WVU Extension Service, Philippi
Edna Talley, Marion County Senior Aides Project, Fairmont
Sarah Kisner, Marion County Senior Aides Project, Fairmont

AGENCIES AND JOB TITLES OF TRAINEES

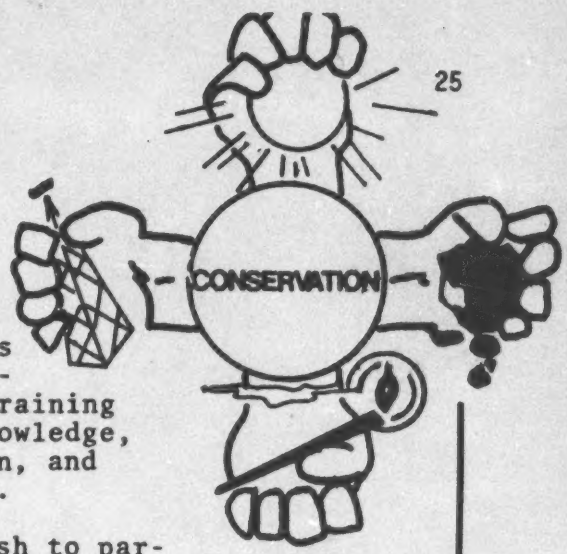
The participants for the Home Energy Conservation Training Program represented the following agencies and job titles:

Agencies	No. of Representatives
Alpha Phi Omega Service Fraternity	1
Barbour County Community Action Association	2
Bel-O-Mar Regional Council	1
Brooke County Committee on Aging	1
Braxton Senior Center	3
Central W.V. Community Action Association, Inc.	2
Columbia Gas of West Virginia	2
Council of the Southern Mountains	2
Doddridge County Senior Citizens	1
Gilmer County Community Action	1
Hancock County Senior Center	1
Marion County Senior Aides Project	8
Marshall County Schools	1
Marshall County Senior Citizens	1
Mercer County Economic Opportunity Council	1
Mingo County E.O.C.	1
Monroe County Community Services Council, Inc.	1
Multi-County Community Action Against Poverty	1
North Central W.V. Community Action Association	6
Preston County Community Action	3
P.R.I.D.E. of Logan County	1
Region 9 Nutrition Program	2
South Central Community Action Association	2
Southwestern Community Action Council	2
Student Action for Appalachian Progress - W.V.U.	1
Tyler County Community Action	1
Upshur County Community Action Council	1
West Central W.V. Community Action, Inc.	1
West Liberty State College	1
West Virginia Department of Health	3
West Virginia Department of Welfare	16
West Virginia University Extension Service	18
Women's Information Center-Blacksville	1
TOTAL	90

Job Titles	
Assistant to Housing Specialists (E.O.C.)	3
Block Grant Coordinator	1
Extension Agent	18
Gas Utilization Representative (Columbia Gas)	2

Job Titles (Cont.)	No. of Representatives
Information and Referral Coordinator (Senior Citizens)	1
Homemaker (Dept. of Welfare)	1
Home Repair Aide (Senior Citizens)	2
Home Repair Specialist (Dept. of Welfare)	2
Housing Specialist (E.O.C.)	2
Outreach Worker/Planner (CAA)	2
Outreach Worker (Senior Citizens)	2
Patient Service Coordinator (Material & Infant Care Clinic)	1
President & Director (CAA)	1
Public School Teacher	2
Senior Citizen Aide	8
Senior Center Director	3
Site Supervisor (Title VII Nutrition Program)	2
Social Service Worker II (Dept. of Welfare)	9
Social Service Worker III (Dept. of Welfare)	2
Social Service Worker IV (Dept. of Welfare)	2
Social Worker Graduate Student	4
Weatherization Crew Chief (CAA)	3
Weatherization Coordinator (Committee on Aging)	2
Weatherization Director (CAA)	7
Weatherization Worker (CAA)	4
W.V.U. Energy Program Coordinator	2
Other	2
TOTAL	90

Home Energy Conservation Training Program (HECTP)



PROGRAM STRUCTURE: This program is designed to provide training for community specialists who wish to conduct local workshops or training sessions to individuals and community groups on home energy conservation. The training will consist of instruction in contemporary knowledge, skills, and methods of home energy conservation, and how that information may be taught to citizens.

PARTICIPATION: Community specialists who wish to participate in the program will be required to attend one full-day training session. Participants will be required to disseminate the energy information to local citizens and clientele by planning and implementing a local workshop, a training session, or by making individual contacts. Participants will be expected to contact 20 citizens or clients.

Participants will be limited to 25 specialists in each training session. Typical participants may be representatives of public service agencies, cooperative extension, civic groups, and others involved in conducting community outreach activities.

SCHEDULE: Training sessions are being planned for the following dates and locations:

Morgantown.....September **15**	Wheeling.....October **6**
Parkersburg....September **22**	Jackson's Mill....October **20**

Additional information concerning specific dates, times, and locations will be forthcoming.

COST: There will be no charge for the training sessions. All training materials will be supplied. However, individual participants must assume any associated costs of attendance, such as transportation and meals.

RESERVATION: There will be twenty-five (25) participants selected for each training session. Participants will be chosen on a first-come, first-served basis. Reservations should be made by writing or by calling (304) 293-3191. Reply forms are attached. Please indicate your agency and the training session you are interested in attending.

INQUIRES: For more information contact one of the following persons:

MIKE VOGEL
Project Leader
KARL HANS
Project Instructor
DR. DAVID L. MC CRORY
Project Director

HECTP
Technology Education Program
West Virginia University
2945 University Avenue
Morgantown, West Virginia 26506
Phone: (304) 293-3191

* This program is being presented by the Technology Education Program at West Virginia University, under a grant from Title 1-A Higher Education Act of 1965

HECTP

RESERVATION REPLY FORM

Name _____
Last First Middle Initial

Agency or Organization _____

Occupational Title _____

Office Address _____

_____
Zipcode

Office Phone ( ) _____

Home Address _____

_____
Zipcode

Home Phone ( ) _____

Please check the statement that indicates your response.

( ) I am interested in attending a Home Energy Conservation Training Session.

I plan to attend the training session at Morgantown ( ), Parkersburg ( ), Wheeling ( ), Jackson's Mill ( ).

( ) Interested, please call me.

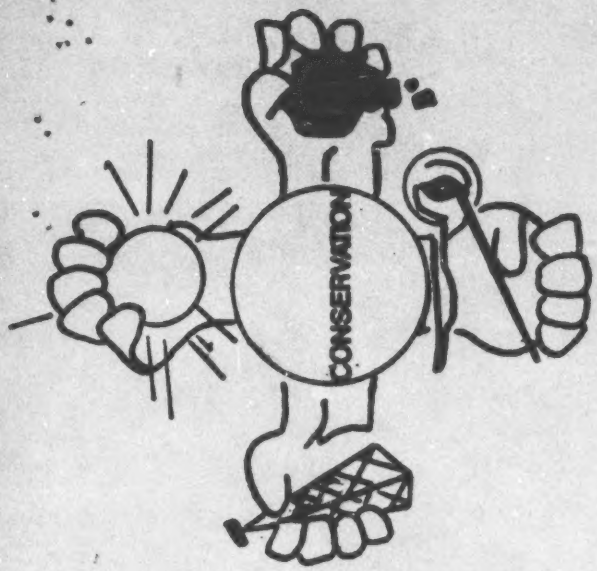
( ) Not interested at this time, thanks.

Comments: _____

_____

Please mail as soon as possible to reserve a session. Mail to:

Mike Vogel
HECTP
Technology Education Program
West Virginia University
2945 University Avenue
Morgantown, WV 26506



HOME ENERGY CONSERVATION TRAINING PROGRAM

HECTP

West Virginia University

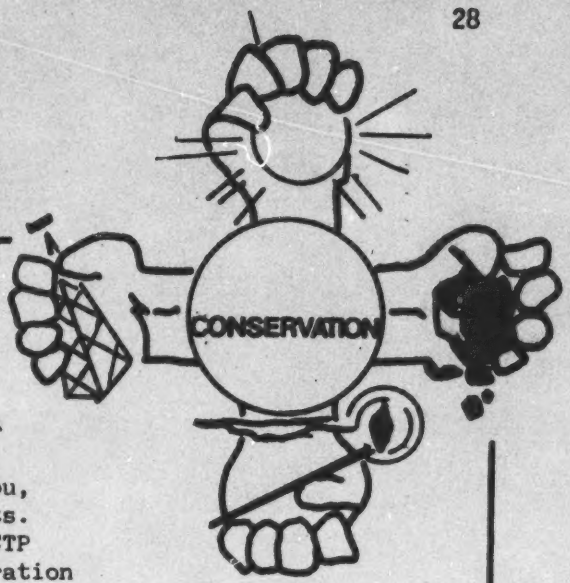
HECTP TRAINING SESSION LOCATIONS

SEPTEMBER 15	MORGANTOWN, WEST VIRGINIA	W.V.U. Coliseum, Room 115 (Mountaineer Lounge)
SEPTEMBER 22	PARKERSBURG, WEST VIRGINIA	Parkersburg Community College, Room 55 A&B (Downstairs of Main Build.)
OCTOBER 6	WHEELING, WEST VIRGINIA	Ohio County Welfare Dept. Conference Room. 407 Main Street, Wheeling, W.V.
OCTOBER 20	JACKSON'S MILL STATE 4H CAMP	Jackson's Mill State 4H Camp, Weston, W.V. Flameway Building

These training sessions are funded by Title I-A Higher Education Act of 1965 and the West Vriginia Board of Regents.

The Home Energy Conservation Training Program is conducted by the Technology Education Program at West Virginia University.

Home Energy Conservation Training Program (HECTP)



Dear HECTP Participant,

I would like to thank you for your interest in the Home Energy Conservation Training Program. We are looking forward to working with you and your organization in developing new energy conservation competencies. In order that we may better serve you, it is necessary that we know your specific interests. The attached outline lists the topics which the HECTP staff have found to be worth instructional consideration in the training sessions. Please check the topics which you find to be of specific concern to your organization and rate them in order of importance. (1, 2, 3, ... etc.) Enclosed you will find a pre-addressed envelope to return the outline. Please return this information to us as soon as possible.

There have also been some questions regarding participant's obligations. It is expected that each participant pass along energy conservation information and resources to 20 West Virginia citizens. This obligation can be fulfilled by conducting a workshop for the community, a training session for your agency or by making individual contacts with clients. To aid you in this endeavor, you will have access to the Technology Education Resource Center located at the University in Morgantown. The center is complete with books, booklets, slide-tape presentations, flyers, and exhibits on home energy conservation. Many of the materials are "in-house" to be used in the center only. However, we do have materials which can be borrowed on a weekly basis. The staff will also be available as consultants during this time. Participants are also expected to record the contacts for HECTP evaluation. The forms will be furnished by the HECTP staff.

According to our files you will be attending the following session:

( ) Morgantown - September 15
( ) Parkersburg - September 22
( ) Wheeling - October 6
( ) Jackson's Mill - October 20

Please make a note of this date on your calendar. It is imperative that we know of any cancellations as soon as possible so a replacement can be found. At the present time we have 76 participants, which leaves room for 24 more. If you know of others that would be interested in our program, pass the word along.

A complete schedule for your training session with location and specific times will be sent to you a few weeks before the session. A list of those attending the session will also be included to facilitate carpooling.

If there are any questions regarding the training sessions, please call.

Thanks,

Mike Vogel
Project Leader

MV:kg

TOPICS FOR HECTP TRAINING SESSIONS

Instructions: Please check the topics which you find to be of specific concern. Rate the topics and subtopics in the order of importance. (1, 2, 3, ... etc. 1 being the most important)

_____ Topic #1 Energy in Perspective

Subtopics
- _____ Energy Consumed in the World
- _____ Energy Consumed in the US
- _____ Energy Consumed in the Home
- _____ Why Conservation of Energy
- _____ Energy Outlook

_____ Topic #2 Heat Transfer in the House

Subtopics
- _____ Forms of Heat Transfer (Convection, Conduction, Radiation, Infiltration)
- _____ Paths of Heat Loss
- _____ Calculations of Residential Heat Loss
- _____ Calculation of Residential Space Heating Costs

_____ Topic #3 Weatherization Options

Subtopics
- _____ Caulking (Types, inspection, application)
- _____ Weatherstripping (Window application, door application)
- _____ Storm Windows
- _____ Storm Doors
- _____ Insulation ("R" and "U" values, vapor barriers, kinds, types, applications)

_____ Topic #4 Heating Systems

Subtopics
- _____ Heating Fuel Options (Electric, Oil, Gas, Coal)
- _____ Furnace Types (Forced air, steam, hot water, heat pump)
- _____ Furnace Maintenance
- _____ Heating With Wood/Selection of Wood
- _____ Fireplaces
- _____ Wood Stoves

_____ Topic #5 Energy and Appliance Use

Subtopics
- _____ Appliance Theory of Operation
- _____ Energy Efficiency Rating
- _____ Potential for Conservation in Selection and Use of Applainces
- _____ Dishwashers
- _____ Hot Water Heaters
- _____ Range
- _____ Refrigerator
- _____ Lighting
- _____ Clothes Washer and Dryer
- _____ Air Conditioning
- _____ Meter Reading

_____ Topic #6 Designing Energy Efficient Housing

_____ Topic #7 Energy Conservation in the Apartment

_____ Topic #8 Energy Conservation in the Mobile Home

Comments: _____

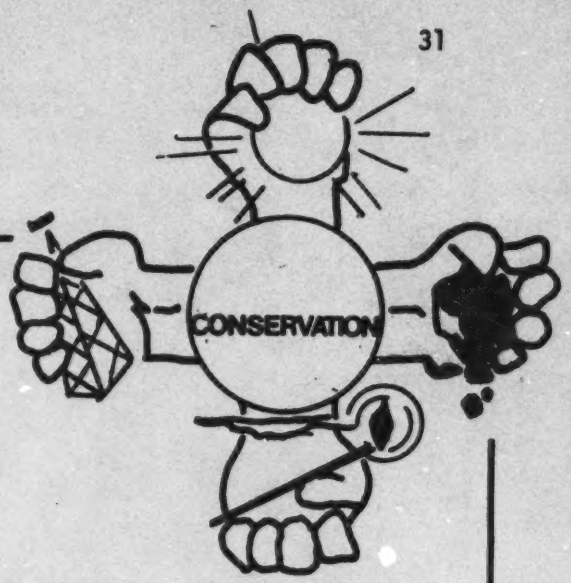
_____

_____

_____

Please use pre-addressed envelope and return as soon as possible. No postage is required. THANK YOU!

Home Energy Conservation Training Program (HECTP)



December 18, 1978

Dear HECTP Participant:

The past few days West Virginia has gotten a real taste of winter with a little snow and low temperatures. I think winter is here to stay. With the coming of cold weather it is important that our houses be warm and comfortable and that heating systems are in good working condition. To accomplish this task many of us have been busy weatherizing and/or passing on helpful hints through workshops, energy fairs, and personal contacts. The staff of the Home Energy Conservation Training Program have been supplying many of you with materials and resources. We have been impressed by the demand of these resources and are encouraging their continued use.

This is prime time to have energy conservation workshops as people are trying to save money and stay warm. If you are having any problems or need any resources please feel free to call or send the enclosed card to us. Please let us know how your energy conservation program and contacts are progressing.

When your forms are complete please send them to:

HECTP/WVU
Technology Education Program
2945 University Avenue
Morgantown, WV 26506

Please send them no later than March 1, 1979.

Again, any problems, let us know. Take care and have a happy holiday.

Sincerely,

Mike Vogel

MPV:tb
Enclosure

FORM PC-1

HOME ENERGY CONSERVATION TRAINING PROGRAM

HECTP Participant _____ Agency _____
Last First

Title _____ Address _____
Street Box

Office Phone _____

_____
City Zip

Person Contacted Should be the same as on Form MU-2	Address (street, city, zip)	Age (Approx)	Sex	Phone	Type of contact (Personal, Workshop, Training Session)
1.			M F		
2.			M F		
3.			M F		
4.			M F		
5.			M F		
6.			M F		
7.			M F		
8.			M F		
9.			M F		
10.			M F		
11.			M F		

FORM PC-1 •

HOME ENERGY CONSERVATION TRAINING PROGRAM

HECTP Participant _____
Last First

Person Contacted Should be the same as on Form MU-2	Address (street, city, zip)	Age (Approx)	Sex	Phone	Type of contact (Personal, Workshop, Training Session)
12.			M F		
13.			M F		
14.			M F		
15.			M F		
16.			M F		
17.			M F		
18.			M F		
19.			M F		
20.			M F		

FORM MU-2 •

HOME ENERGY CONSERVATION TRAINING PROGRAM

HECTP Participant _____ (Last) _____ (First) Agency _____

Title _____ Address _____ (Street) _____ (P.O. Box)

Office Phone _____ _____ (City), WV _____ (Zip)

Person Contacted Should be the same as on Form PC-1	Major Energy Concern	Resources used to deal with problems	Was HECTP materials utilized	HECTP materials used
1.			yes no	
2.			yes no	
3.			yes no	
4.			yes no	
5.			yes no	
6.			yes no	
7.			yes no	
8.			yes no	
9.			yes no	
10.			yes no	
11. 38			yes no	39

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FORM·MU-2·

HOME ENERGY CONSERVATION TRAINING PROGRAM

HECTP Participant_____
Last First

Person Contacted Should be the same as on Form PC-1	Major Energy Concern	Resources used to deal with problems	Was HECTP materials utiliized	HECTP materials used
12.			yes no	
13.			yes no	
14.			yes no	
15.			yes no	
16.			yes no	
17.			yes no	
18.			yes no	
19.			yes no	
20.			yes no	

HECTP TRAINING EVALUATION

Name_____

Agency_____

Training Session_____

1. Has this training session been beneficial to you? Yes_____

   In what way? No_____

2. Will your agency be able to use this material? How?

3. Which units will be of most benefit? Please rate according to benefit.

   Unit 1_____ Unit 5_____
   Unit 2_____ Unit 6_____
   Unit 3_____ Unit 7_____
   Unit 4_____ Unit 8_____

4. Was the information to technical? Yes_____ No_____

5. Please comment and rate the following Units of Instruction.

	(Please Circle) Poor				Good
Unit 1 Energy in Perspective	1	2	3	4	5
Comment:					
Unit 2 Heat Transfer	1	2	3	4	5
Comment:					
Unit 4 Heating Systems	1	2	3	4	5
Comment:					
Unit 5 Appliance Usage	1	2	3	4	5
Comment:					
Unit 6 Designing Energy Efficient Shelter	1	2	3	4	5
Comment:					
Unit 3 Weatherization	1	2	3	4	5
Comment:					
Sec. 2 Caulking/Weatherstripping	1	2	3	4	5

Unit 3 Section 2 Continued
Windows

Comment:

Unit 3 Section 3 1 2 3 4 5
Insulation

Comment:

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6. How do you plan to disseminate this material to 20 people?

Cooperative Extension Service

Center for Extension and Continuing Education

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P.O. Box 438
Hamlin, WV 25523
September 20, 1978

West Virginia University

TO: Gene Brewer

FROM: John L. Marra
Extension Agent

SUBJECT: Energy Column "Watts Happening"

I appreciated talking with you yesterday and was well pleased that your county paper will welcome a new column on energy. As we agreed, the column will be geared to the local scene with useful ideas that our county citizens can use. I feel that the continued effort you are making to beneficially reach the total county area is indicative of your sincere effort to serve all the needs of your subscribers.

West Virgininia University appreciates your concern for your public.

bf

cc: Roland Manthe
M.P. Vogel

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Programs and activities offered by the West Virginia University Cooperative Extension Service are available to all persons without regard to race, color, or national origin.
West Virginia University, U. S. Department of Agriculture, and West Virginia Counties Cooperating

Cooperative Extension Service

Center for Extension and Continuing Education

P.O. Box 438
Hamlin, WV 25523
September 29, 1978

West Virginia University

TO: Roland Manthe
Division Leader

FROM: John L. Marra
Extension Agent

SUBJECT: Energy Column "WATT'S HAPPENING"

In a previous letter I informed you of a newspaper column that was recently initiated in the Lincoln Journal concerning energy usage. Enclosed you will find the first of a year long weekly column.

bf

cc Mike Vogel
Technology Education Program

Enclosure

Programs and activities offered by the West Virginia University Cooperative Extension Service are available to all persons without regard to race, color, or national origin.

West Virginia University, U. S. Department of Agriculture, and West Virginia Counties Cooperating

"Watts Happening"

By John Márra

This winter Lincoln County residents will be informed in this new column about many aspects of energy use. The West Virginia University Extension Service in Lincoln County feels local residents could save on their fuel bills, make their homes warmer in the winter, and, in the long run, keep our fuel supplies viable for future generations.

In future articles in this column we will be discussing various aspects of energy use including: 1. home heating, 2. weatherization, 3. energy and appliance use, 4. energy conservation in the mobile homes, 5. heating with wood, 6. safety in heating, 7. understanding your fuel bills, and many other areas that we feel you need to know.

Please let us know at the Lincoln County Extension about your concerns in relation to energy use because your input can strenghten this column. Contact the Extension Service at 824-7472.

HOW MUCH FUEL LEFT:

Surrounding Lincoln County is tremendous sources of coal and gas not to mention the coal not disturbed under our own county. But did you know that we have only about 40 years reserve of gas in the United States; 10 years reserved left of petroleum in the United States and about 500 years left in reserve of coal? The above figures are why this column will study the effects of enery shortages and make several recommendations to you as homemakers to conserve and better use our precious energy resources. It is ironic that in slightly more than two decades the United States changed from a net exporter of energy to an importer of about 15 per cent of its energy including 35 per cent of its oil.

The energy crisis is not a result of declining energy production; rather, it is because demand has been rising faster than energy sources have been developed.

In reading a article the other day I was surprised at the time it took to develop alternate sources of energy. In 1850, we had a wood-burning economy it took until about 1900 to convert to coal. It took until 1950 to convert to oil and natural gas. Even if the technical environmental, political and economic restraints were removed to allow implementation of new energy sources, it would take time to get the plants and mines running.

ENERGY SOURCES	TIME TO DEVELOP
1. Surface coal mines	3-6 years
2. Underground coal mines	4-7 years
3. New Refinery construction	4-7 years
4. Alaskan pipeline	4-7 years
5. Coal gasification	5-8 years
6. Shale Oil Mines	5-8 years
7. New oil gas production	3-10 years
8. Fossil fuel electric generating plant	6-10 years
9. Nuclear electric generating plants	

As I have shown, there seems to be an air of uncertainty as to the amount and future supply of our present energy. As we reside here in Lincoln County we can little influence the construction of various new sources of energy but we can conserve energy for future generations and in the meantime save money and keep warmer this winter. This is what this column will be directed to and, as I mentioned, your ideas will be welcomed.

NEXT WEEK:

Next week's article will concern itself with heat loss in the home. Programs and activities offered by the West Virginia University Cooperative Extension Service are available to all persons.

Cooperative Extension Service

Center for Extension and Continuing Education
P.O. Box 438
Hamlin, WV 25523

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September 20, 1978

West Virginia University

TO: Roland Manthe
Division Leader

FROM: John L. Marra
Extension Agent

John L. Marra

SUBJECT: Home Energy Workshop and
County Extension Service Committee Meeting

I'm enclosing a copy of the Home Energy Conservation Training Manual that we used at our meeting in Morgantown September 15th. Because I was the only Charleston Area Agent present, I thought it needed to be in your library for future reference. I deem that conference as one of the most useful meetings in terms of material explained that I've attended. I've also talked with Gene Brewer and starting with the next edition, I'll have an energy column called "Watts Happening" that will at least run thru this winter.

We have scheduled a County Extension Service Committee meeting October 5, 1978 at the Senior Citizen's Hall in Hamlin. Dinner will be served there. If you are free that evening we would welcome your presence. The purpose of the meeting will be program review (January 1 - October 5, 1978) and evaluation that would logically lead into our budget meeting of December 19th. Mark, Charlotte and myself will be making the presentations in our respective areas inorder to keep the County Extension Service Committee more informed and legitimize our budget request in December.

Come join us.

bf

cc: Mark Dillon
Charlotte Critchfield
Tom Vogel

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West Virginia University, U. S. Department of Agriculture, and West Virginia Counties Cooperating

The National Center for Appropriate Technology

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Hiram Shaw
~~JAMES F. SCHMIDT~~
~~Executive Coordinator~~
Acting Executive Director

ANTHONY J. MAGGIORE, JR.
Chairman of the Board

December 8, 1978

Mike Vogel, Project Leader
West Virginia University
Morgantown
West Virginia 26505

Dear Mr. Vogel,

Thank you very much for sending us the manual "Home Energy Conservation Training Program." We appreciate your generosity.

The manual is being put in our library, and I'm sure it will be used frequently by our people.

Thank you again for your interest.

Sincerely,

Carmela A Conning

Carmela A. Conning, Librarian

Printed on Recycled Paper

Cooperative Extension Service WEST VIRGINIA UNIVERSITY

Center for Extension and Continuing Education

P.O. Box 471
Ripley, W. Va. 25271
November 27, 1978

Mike Vogel
Project Leader
Technology Education Program
W. Va. University
2945 University Avenue
Morgantown, W. Va. 26506

Dear Mike;

I wanted to thank you for loaning the Energy Exhibit materials to us. We had a very favorable response to the Exhibit and our only negative comment was why can't we have it longer, so more people can see it.

We presented the exhibit items along with a lot of our Extension publications concerning energy conservation in a bank lobby for two days and in the lobby area of a variety store in a shopping plaza. The Extension staff in our county was able to be at the exhibit site most of the time and we found that many people stopped to ask questions, pick up brochures, etc.

We asked people to register if they took publication, but we found that not all people were willing to do this. However, we did have approximately 80 people register at the two sites, and probably that many more who did not register.

We found that most people who visited the exhibit indicated they had done weatherstripping, some insulation, etc. but were wondering what else they could do.

It would be a real handicap for us to try to get together exhibit items such as you have. If you have other items in the future which you would like to share with us we would be pleased to cooperate.

Sincerely,

Sue Black

Sue Black
Extension Home Economist

SB/jle

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West Virginia University, U.S. Department of Agriculture, and West Virginia Counties Cooperating.

West Central West Virginia Community Action Association

Gilmer County Office:
201 North Court Street
P.O. Box 301
Glenville, West Virginia 26351
phone 462-8551

serving the counties of:

CALHOUN

DODDRIDGE

GILMER

JACKSON

MASON

PLEASANTS

RITCHIE

ROANE

TYLER

WIRT

WOOD

Oct. 25, 1978

Dear Dr. McCrory,

I will be conducting home energy conservation workshops during the month of November at the local Gilmer County community centers. Since most of them will be with the homemakers clubs I will attempt to keep the technical aspects at a minimum. The major concerns will deal with stopping infiltration, insulation, appliance use, and a general approach to lowering gas and/or electric bills. Therefore I would greatly appreciate any information your agency could send me pertaining to the above mentioned subjects. My goal is to hand out a comprehensive energy package to each participant in the workshops which will reinforce what will be said during my discussions.

Thank-you kindly,

Peter Sandwall

Mail to:
Gilmer County Community Action
15 Church St.
Glenville, W.Va. 26351
Att: Peter Sandwall